

## *Abstract*

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This invention improves the quality of detection and speeds up the search for threats that might be hidden in shoes worn by airport passengers and people in other environments as well as threats hidden in objects like packages, by automatically scanning for these threats when the people walk by or objects are placed in sensors capable of detecting the threats. These sensors are based primarily on an adequate implementation of the quadrupole resonance effect for threat material detection, complemented with sensors that detect the presence of conducting materials and auxiliary elements that provide the location of the threats, control the operation of the sensors and improve their effectiveness.